

CLAIMS

1. An antenna arrangement comprising a substantially planar patch conductor, having first and second connection points for connection to radio circuitry and a slot incorporated between the points, and a ground plane, wherein the antenna arrangement operates in a plurality of modes depending on the impedances of the circuitry connected to the first and second connection points.
- 10 2. An arrangement as claimed in claim 1, characterised in that the ground plane is spaced from, and co-extensive with, the patch conductor.
- 15 3. An arrangement as claimed in claim 1, characterised in that the slot is positioned asymmetrically in the patch conductor, thereby providing an impedance transformation.
- 20 4. An arrangement as claimed in claim 1, characterised in that the radio circuitry is arranged to provide a first mode in which a radio signal is fed to the first connection point and the second connection point is grounded and a second mode in which the connections are reversed.
- 25 5. An arrangement as claimed in claim 1, characterised in that the radio circuitry is arranged to provide a first mode in which a radio signal is fed to the first connection point and the second connection point is open circuit and a second mode in which the connections are reversed.
- 30 6. An arrangement as claimed in claim 1, characterised in that the radio circuitry is arranged to feed a radio signal to the first connection point and to provide a first mode in which the second connection point is grounded and a second mode in which the second connection point is open circuit.

7. An arrangement as claimed in claim 6, characterised in that the radio circuitry include switching means connected between the second connection point and ground to change between first and second modes.

5 8. An arrangement as claimed in claim 1, characterised in that the patch conductor includes a third connection point for connection to the radio circuitry.

10 9. An arrangement as claimed in claim 8, characterised in that a further slot is incorporated in the patch conductor between the first and third connection points.

15 10. An arrangement as claimed in claim 8, characterised in that the radio circuitry comprises a distributed diplexer connected to the first and third connection points.

11. A radio communications apparatus including an antenna arrangement as claimed in claim 1.